DOCUMENT RESUME

ED 105 841 IR 001 872

AUTHOR Postma, Charles H.
TITLE Environmental Influences on Student Affective Perceptions of Simulation-Gaming as a Pedagogical Technique.
PUB DATE Apr 75
NOTE 17p.; Paper presented at the Annual Meeting of the American Educational Research Association (Washington, D.C., March 31 through April 4, 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Affective Objectives; Affective Tests; American History; Educational Games; *Educational Research; Geography; Grade 11; History Instruction; Metropolitan Areas; Research Methodology; Research Projects; Rural Areas; *Rural Urban Differences; Secondary Education; *Simulation; *Student Attitudes; Teaching Methods; Teaching Techniques

ABSTRACT

Research on the effectiveness of simulation-gaming in teaching affective objectives to students of differing geographical backgrounds is described. A sample of 294 11th graders was studied at five high schools in which both traditional lecture-discussion and simulation-gaming formats were used to teach U.S. history. A student affective perception instrument was administered before and after the experimental period. Marked differences were found in perceptions of the simulation-gaming mode of instruction at the end of the five week experimental period between students living in rural-small town environments, a medium size city environment, and a major metropolitan environment. Similarly, differences were found at the end of 10 weeks following the experimental treatment. In each case, students exposed to simulation-gaming scored higher. The greatest effect was found to occur in rural-small town areas, and the least effect was in medium size city environments. (DGC)

ED105841

ENVIRONMENTAL INFLUENCES ON STUDENT AFFECTIVE PERCEPTIONS OF SIMULATION-GAMING AS A PEDAGOGICAL TECHNIQUE

Charles H. Postma Ashland College

A Paper Presented to the Convention of
The American Educational Research Association
Washington, D.C.
April, 1975

Session No.: 24.02

IR 001 872

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

INTRODUCTION

The utilization of the simulation-gaming teaching technique to encourage more active student participation in the learning process has increased in recent years. Claims are made for the efficacy of simulation as a teaching tool and an effective learning method for students from varied social and economic environments. Therefore, the primary purpose of this study was to compare the effectiveness of simulations in teaching affective objectives to students whose social and geographical environments are substantially different.[1]

This researcher has examined the prominent studies (1960-1974) pertaining to simulation and its effect on the affective dimensions of learning. Numerous researchers have attempted to measure student motivation, strategy learning, critical thinking skills, and socialization development. However, they have failed to adequately explore and analyze the students' social and economic environments and their effect on the students' perception of the simulation-gaming learning process.

Cohen (1970) did examine inner-city junior high school students' interest levels while using the simulation game, Consumer. She found that after playing Consumer for a week, 93 per cent of the students believed that the simulation game was more interesting than their regular class work.

Allen and Main (1974) conducted a study to examine the effect of instructional gaming upon the students' absentee rate. The junior high school students participating in the experimental group played the simulation, Equations, for two sessions per week and heard lectures and worked math problems the remaining three sessions of the week. The junior high students in the control group were lectured to and worked problems individually during all five sessions of the week.

Allen and Main reported that there was a profound effect upon absenteeism in the Detroit inner-city school classrooms where simulation was introduced. They state: "The evidence is clear that absences dropped markedly and this can be interpreted as an indicator of students' attitudes towards school and what is being done there."[2]

Significant problems were apparent in previous studies pertaining to simulation and its effect on the affective processes. First, the researchers did not examine social, economic, or geographical factors and their influence on the simulation-gaming technique. Previous studies concentrated primarily on inner-city students. Second, many of the studies had confined themselves to laboratory settings rather than field testing situations; therefore, the environments were carefully controlled by the researcher. Third, many researchers had used self-designed simulations or "pet games" to test their hypotheses concerning simulation

---

[1]The purpose of this study was to determine if different perceptions did exist among the experimental group students only. For an analysis of comparisons between the control and experimental groups, refer to "Student and Teacher Affective Perception of Simulation-Gaming as a Pedagogical Technique," presented at the A.E.R.A. Annual Meeting, Chicago, Illinois, 1974, Session No.: 13.24.

[2]Layman E. Allen and Dana B. Main, "The Effect of Instructional Gaming Upon Absenteeism: The First Step." Simulation And Gaming, ed. John E. Moriarty (Washington: National Bureau of Standards, 1974), 147.

and processes of learning. Fourth, researchers had used participants who were above average in academic achievement. Fifth, the experimental treatment period was not sufficiently long. Sixth, the researchers taught the control and experimental classes rather than utilizing the classroom teachers. Seventh, a significant number of research designs did not incorporate a delayed interval post-test. Those studies that did, allowed too short a time between the post-test and delayed interval post-test.

Believing that the problems merited further study and that weaknesses noted in the earlier research could be examined in a more rigorous research analysis, the investigator postulated and examined the following null hypotheses for the purposes of this study:

1. At the conclusion of a five-week experimental treatment period, there will be no marked difference between experimental group students living in a rural-small town environment, medium size city environment, and a major metropolitan environment on a measure of affective perception of the learning experience when simulation-gaming techniques are used.

2. Following a delayed interval of ten weeks, after the conclusions of the experimental treatment period when simulation-gaming techniques were used, there will be no marked difference between experimental group students living in a rural-small town environment, medium size city environment, and a major metropolitan environment on a measure of affective perception of the learning experience.

METHOD

Subjects

The subjects who participated in the study were eleventh grade students attending five high schools in Indiana. The subject population at the inception of the study consisted of 294 students of which 158 were females and 136 were males. One hundred forty-two students were enrolled in the control classes and 152 were enrolled in the experimental classes. The subjects in the twelve classes (six control classes and six experimental classes) had a mean I.Q. score of 106 and were grouped as general ability students. Each was randomly assigned to the control and experimental groups.

In order to obtain a geographically and socially diverse mix in the student sample, three different school populations were selected. Four classes consisted of students whose environment was categorized as rural-small town. These subjects lived primarily on farms or in towns with a population of 10,000 or less. Four classes consisted of subjects whose social environment was categorized as medium size city population. The socio-economic background of these subjects was lower class to middle class with the majority of students being classified as middle class. They lived in a city with a population of 85,000. The remaining four classes consisted of subjects who lived in a major metropolitan area within the State of Indiana. These subjects came from a lower class to upper middle class socio-economic background with the majority of the students being classified as lower class. They lived in a city with a population of over 170,000.

Design

The original study consisted of five weeks (25 classroom hours) during which the experimental group studied United States Domestic History (1870-1915) by means of simulation-gaming techniques, while the control groups studied iden-

tical material by means of traditional lecture-discussion format. Both the control and experimental classes were assigned the normal textbook readings as a supplement to the teaching methodologies.

To control for the teacher variable, each of the six volunteer teachers participating in the original study taught one control and one experimental class. Prior to the beginning of the experimental treatment period, each teacher received instruction in the use of the three simulation-games. The instruction included working through the procedures for playing the games, the goals of each simulation exercise, and the utilization of debriefing sessions at the conclusion of each simulation.

Three commercially available simulation-games were utilized in the experimental classes. They were: "The Game of Farming," High School Geography Project: Manufacturing and Agriculture, published by the MacMillan Co. in 1969; "Promotion," American History Games, published by Abt Associates, Inc. in 1970; and The Cities Game, published by Communications, Research, Machines, Inc. in 1970.

The testing procedure consisted of a pre-test, post-test, delayed interval post-test sequence. The Student Affective Perception Instrument consisted of twenty-eight response items. These questions were designed to measure the experimental and control students' affective perception of the two teaching methods. The rationale for the creation of this instrument was identical to the rationale utilized in the creation of evaluation instruments by the Ball State University Curriculum Evaluation Team. This evaluation model suggests that "an evaluation must be based on a description of what pupils and teachers and other professional personnel think is happening in school."[3]

For the collected data regarding Hypotheses One and Two, frequencies and percentages were used in order to facilitate the description of modal responses, such that potential differences between the groups being compared might be readily identified and localized. A difference spread between groups of ten per cent or more was judged to be a meaningful index of marked difference.[4]

FINDINGS

Hypothesis One

It was evident from the data collected on the twenty-eight item Student Affective Perception Instrument at the conclusion of the experimental period, that Hypothesis One was rejected for twenty-five response items. Responses to each of these items revealed marked differences in perceptions of the simulation-gaming mode of instruction between students living in a rural-small town environment, a medium size city environment, or a major metropolitan environment. Table 1 presents the data relevant to Hypothesis One.

---

[3]Richard C. Kunkel and James H. McElhinney, "A Rationale for the Evaluation of Curriculum" (Unpublished paper, Ball State University, 1970), 5. All instruments were developed by the author and field tested prior to their use in the research design.

[4]Each item on the Student Affective Perception Instrument was dealt with individually. Hypotheses One and Two were supported or rejected for each item at a difference spread of ten per cent or greater. Such a difference was considered to be a marked difference sufficient to reject the hypothesis.

TABLE 1

ASPECTS OF THE LEARNING EXPERIENCE FOR WHICH STUDENT POST-TEST PERCEPTIONS DIFFERED ACCORDING TO SOCIAL/GEOGRAPHIC ENVIRONMENT

Item No.	Response Item	Percentage Increase in Response over the Pre-Test Response		
		R.S.T.E.[1]	M.C.E.[2]	M.M.E.[3]
1.	In general, do most students in this class volunteer answers to teacher questions on material being presented?			
	Item responses-Almost all the time and About half the time[4]	+37.2	+30.9	+50.0
2.	How much time did you usually spend preparing for your United States History class?			
	Item Responses-None at all and Less than one-half hour per day.	- .6	+36.2	+21.2
3.	The method of teaching used in this class has caused an increase in my interest level toward history.			
	Item Responses-I strongly agree and I agree.	+28.9	+ 2.2	+30.8
4.	In general, how well do you like United States History?			
	Item Responses-I like it very much and I like it.	+43.6	+33.2	+44.8
5.	My interest in history in this class has increased.			
	Item Response-I strongly agree and I agree.	+43.1	+22.9	+16.1
6.	I use the library as a source of material for this class.			
	Item Response-At least once a week.	+ 4.3	+16.0	- 2.4

[1]Rural-Small Town Environment

[2]Medium Size City Environment

[3]Major Metropolitan Environment

[4]The item responses listed in Table 1 and Table 2 are where the marked differences occurred for each response item.

TABLE 1, continued

Item No.	Response Item	Percentage Increase in Response over the Pre-Test Response		
		R.S.T.E.	M.C.E.	M.M.E.
7.	Which of the following best describes how you feel about the teaching method being used in this class?			
	Item Responses-I am very pleased and I am pleased.	+60.0	+11.1	+34.0
8.	When I am working together with students in this classroom I believe that I can learn useful knowledge from my fellow students.			
	Item Responses-I strongly agree and I agree.	+46.0	+32.1	+42.1
11.	In your opinion, is the teaching method used by the teacher in this class:			
	Item Responses-A better way for me to learn the material.	+50.8	+27.5	+14.9
13.	I feel that the enjoyment of working with the material in this class has:			
	Item Responses-Greatly increased and Increased.	+74.7	+45.4	- .3
14.	My active participation in this class has:			
	Item Responses-Greatly increased and Increased.	+81.1	+51.8	+56.9
15.	The academic material I have been working with in this class has:			
	Item Responses-Much academic value and Some academic value.	+13.2	- 4.9	+21.9
16.	I believe that the teacher's present teaching method in this class is helping me to build a better knowledge of American History.			
	Item Response-I strongly agree.	+41.7	+ 8.3	+19.2
17.	I believe that in this class, I am better able to make judgements on the basis of a variety of historical information.			
	Item Responses-I strongly agree and I agree.	+11.1	+ 1.3	+35.4

TABLE 1, continued

Item No.	Response Item	Percentage Increase in Response over the Pre-Test Response		
		R.S.T.E.	M.C.E.	M.M.E.
18.	The personal in-classroom relationship between the teacher and myself has positively improved.			
	Item Responses-I agree and I strongly agree.	+20.9	+44.4	-17.4
19.	The teaching method used in this class has encouraged me to exchange ideas and information with my fellow students.			
	Item Responses-I strongly agree and I agree.	+59.2	+18.0	+66.6
20.	In your opinion, the teaching materials used in this class now:			
	Item Response-Allow me to become an active participant in my learning process.	+57.2	+13.2	+33.3
21.	I more fully understand the concept that life in American society consists of negotiation and compromise on the part of all people.			
	Item Responses-I strongly agree and I agree.	+49.4	+45.0	+22.4
22.	I better understand the concept that many and varied groups of people have to rely upon each other in order for all groups to survive in American society.			
	Item Responses-I strongly agree and I agree.	-28.4	- 8.7	+ 8.5
23.	If I were to list the five or six most important problems that the United States faces today and then look at what I am learning in United States History, I would find that the study of history is helping me to examine possible approaches to these problems.			
	Item Responses-Strongly agree and Agree.	+46.3	+14.8	+38.5
24.	I personally find the study of American History very enjoyable.			
	Item Responses-Strongly agree and Agree.	-22.2	+38.1	- 1.5

TABLE 1, continued

Item No.	Response Item	Percentage Increase in Response over the Pre-Test Response		
		R.S.T.E.	M.C.E.	M.M.E.
25.	Farming is an occupation as important as working in industry within the cities of America.			
	Item Responses-Strongly agree and Agree.	+20.7	+34.1	- 1.5
26.	Farming is probably an easier way to earn a living than most occupations.			
	Item Responses-Strongly agree and Agree.	+ 3.3	+79.8	- 1.9
27.	Farming is risky business.			
	Item Responses-Strongly agree and Agree.	+48.3	+44.0	- 1.3
28.	If I were to list the most important economic, social, and political problems that face American cities in the Twentieth Century the most effective means for minimizing these problems is the cooperation of interest groups (coalitions, lobby groups, etc) in the cities toward elimination of these problems.			
	Item Responses-Strongly agree and Agree.	+47.2	+45.1	+33.3

It was evident from the data collected on the twenty-eight item Student Affective Perception Instrument that Hypothesis One was supported for three response items. Analysis of these items revealed no marked difference between students living in a rural-small town environment, a medium size city environment, or a major metropolitan environment. The response items were:

1. "My ability to reach consensus on political, social, and economic issues with my peers in group situations has:"
2. "The topics studied in this class:"
3. "My personal attitudes toward various groups of people in American society are now based on more adequate information because I have studied material about them in this class."

Analysis of the Pre-Post-test data revealed marked percentage increases, favoring the rural-small town environment students, for response items 3, 4, 5, 7, 8, 11, 13, 14, 15, 16, 19, 20, 21, 23, 27, and 28.

Analysis of the Pre- Post-test data indicated a marked percentage increase, favoring the medium size city environment student, for the response items 1, 2, 6, 18, 21, 24, 25, 26, 27, and 28.

Analysis of the Pre- Post-test data revealed marked percentage increases, favoring the major metropolitan environment students, for response items 3, 4, 8, 15, 17, 19, 22, 23, and 24.

Hypothesis Two

It was evident from the data collected on the Student Affective Perception Instrument that Hypothesis Two was rejected for twenty-three response items. Each of these items revealed a marked difference in affective perceptions of instructional methodology between students living in a rural-small town environment, a medium size city environment, or a major metropolitan environment during the ten week interval following return to experiencing the traditional lecture-discussion mode of instruction.

TABLE 2

ASPECTS OF THE LEARNING EXPERIENCE FOR WHICH STUDENT DELAYED INTERVAL POST-TEST PERCEPTIONS DIFFERED ACCORDING TO SOCIAL/GEOGRAPHIC ENVIRONMENT

Item No.	Response Item	Percentage Decrease in Response over the Post-Test Response		
		R.S.T.E.	M.C.E.	M.M.E
1.	In general, do most students in class volunteer answers to teacher questions on material being presented?			
	Item Responses-Almost all the time and About half the time.	-39.6	+ 3.9	-45.6
2.	How much time did you usually spend preparing for your United States History class?			
	Item Responses-None at all and Less than one-half hour per day.	+16.4	-19.0	- .8
3.	The method of teaching used in this class has caused an increase in my interest level toward history.			
	Item Responses-I strongly agree and I agree.	-104.6	-15.9	-61.0
4.	In general, how well do you like United States History?			
	Item Responses-I like it very much and I like it.	-39.3	-38.3	-49.3
5.	My interest in history in this class has increased.			
	Item Responses-I strongly agree and I agree.	-74.5	+ .4	-50.0

TABLE 2, continued

Item No.	Response Item	Percentage Decrease in Response over the Post-Test Response		
		R.S.T.E.	M.C.E.	M M.E.
6.	I use the library as a source of material for this class.			
	Item Response-Once or twice in a six weeks period.	+34.4	+24.1	+40.8
7.	Which of the following best describes how you feel about the teaching method being used in this class?			
	Item Responses-I am very pleased and I am pleased.	-99.7	-26.2	-52.8
8.	When I am working together with students in this classroom, I believe that I can learn useful knowledge from my fellow students.			
	Item Responses-I strongly agree and I agree.	-15.1	+13.1	-38.3
9.	My ability to reach consensus on political, social, and economic issues with my peers in group situations has:			
	Item Responses-Increased markedly and Somewhat increased.	-35.4	+ 4.6	+ .9
11.	In your opinion, is the teaching method used by the teacher in this class:			
	Item Response-A better way for me to learn the material.	-73.8	-16.8	-35.7
13.	I feel that the enjoyment of working with the material in this class has:			
	Item Responses-Greatly increased and Increased.	-133.5	-74.1	-82.9
14.	My active participation in this class has:			
	Item Responses-Greatly increased and Increased.	-108.4	-54.5	-72.5
15.	The academic material I have been working with in this class has:			
	Item Responses-Much academic value and Some academic value.	-20.4	-25.9	-42.3

TABLE 2, continued

Item No.	Response Item	Percentage Decrease in Response over the Post-Test Response		
		R.S.I.E.	M.C.E.	M.M.E.
16.	I believe that the teacher's present teaching method in this class is helping me to build a better knowledge of American History			
	Item Response-I strongly agree.	-57.3	-19.7	.35.8
17.	I believe that in this class, I am better able to make judgments on the basis of a variety of historical information.			
	Item Responses-I strongly agree and I agree.	-33.9	- 5.5	-24.1
18.	The personal in-classroom relationship between the teacher and myself has positively improved.			
	Item Responses-I agree and I strongly agree.	-30.8	- 2.0	-17.6
19.	The teaching method used in this class has encouraged me to exchange ideas and information with my fellow students.			
	Item Responses-I strongly agree and I agree.	-77.8	-63.2	-49.7
20.	In your opinion, the teaching materials used in this class now:			
	Item Response-Allow me to become an active participant in my learning process.	-104.6	-27.8	76.3
22.	I better understand the concept that many and varied groups of people have to rely upon each other in order for all groups to survive in American society.			
	Item Responses-I strongly agree and I agree.	+23.0	- 3.7	-23.0
23.	If I were to list the five or six most important problems that the United States faces today and then look at what I am learning in United States History, I would find that the study of history is helping me to examine possible approaches to these problems.			
	Item Responses-Strongly agree and Agree.	-42.1	-36.1	-12.5

TABLE 2, continued

Item No.	Response Item	Percentage Decrease in Response over the Post-Test Response		
		R.S.T.E.	M.C.E.	M.M.E.
24.	I personally find the study of American History very enjoyable.			
	Item Responses-Strongly agree and Agree.	+25.0	-16.8	-12.2
26.	Farming is probably an easier way to earn a living than most occupations.			
	Item Responses-Strongly agree and Agree.	-110.1	- 5.9	- 8.0
28.	If I were to list the most important economic, social, and political problems that face American cities in the Twentieth Century; the most effective means for minimizing these problems is the cooperation of interest groups (coalitions, lobby groups, etc.) in the cities toward elimination of these problems.			
	Item Responses-Strongly agree and Agree.	-22.0	-25.0	-38.2

It was evident from the data collected on the twenty-eight item Student Affective Perception Instrument that Hypothesis Two was supported for five response items. Analysis of these items revealed no marked difference between students living in a rural-small town environment, a medium size city environment, or a major metropolitan environment. The response items were:

1. The topics studied in this class:
2. My personal attitudes toward various groups of people in American society are now based on more adequate information because I have studied material about them in this class.
3. I more fully understand the concept that life in American society consists of negotiation and compromise on the part of all people.
4. Farming is an occupation as important as working in industry within the cities of America.
5. Farming is risky business.

Analysis of the Post- Delayed Interval Post-test data revealed marked percentage decreases, favoring the rural-small town environment students, for response items 1, 3, 5, 6, 7, 9, 11, 13, 14, 16, 17, 18, 19, 20, 23, and 26.

Analysis of the Post- Delayed Interval Post-test data indicated marked percentage decreases, favoring the medium size city environment students, for response items 2, 23, and 24.

Analysis of the Post- Delayed Interval Post-test data revealed marked percentage decreases, favoring the major metropolitan environment students, for response items 1, 4, 6, 8, 15, 17, 22, 24, and 26.

CONCLUSIONS

In general, students from different social/geographic environments do respond differently to aspects of the learning experience when exposed to simulation-gaming methodology. Specifically, the rejection of Hypothesis One for twenty-five response items supported the following conclusions:

1. Students living in a rural-small town environment and enrolled in United States History classes where the simulation-gaming method is used report:

A. Markedly more interest toward the subject of history that do students from a medium size city environment.

B. Markedly more positive attitudes toward the teaching method being utilized than do students living in a medium size city environment or a major metropolitan environment.

C. More marked positive attitudes favoring learning useful knowledge by working together in peer groups than do students living in a medium size city environment.

D. Markedly increased enjoyment of working with the classroom materials than do students living in a medium size city environment or a major metropolitan environment.

E. Markedly more active classroom participation than do students living in a medium size city environment or a major metropolitan environment.

F. Markedly more positive attitudes toward the academic nature of the classroom materials than do students living in a medium size city environment.

G. Markedly more increased positive opinions that they have acquired a better knowledge of American History than do the students living in a medium size city environment or a major metropolitan environment.

H. A more marked increase in the exchange of ideas and information with their peers than do students living in a medium size city environment.

I. A more marked increase in their active participation in their own learning experience than do students living in a medium size city environment, or a major metropolitan environment.

J. A more marked increase in their ability to examine possible approaches to solving problems than do students living in a major metropolitan environment.

K. Markedly more positive attitudes toward the concept that life in American society consists of negotiation and compromise on the part of all people than do students living in a major metropolitan environment.

2. Students living in a medium size city environment and enrolled in United States History classes where the simulation-gaming technique is used report:

A. Markedly more response to teacher asked questions than do students living in a rural-small town environment or a major metropolitan environment.

B. A more marked decrease in their time spent in the library than do students living in a rural-small town environment or a major metropolitan environment.

C. A markedly more positive in-classroom relationship between them and the teacher than do students living in a rural-small town environment or a major metropolitan environment.

D. Markedly more positive attitudes toward the concept that life in American society consists of negotiation and compromise on the part of all people than students living in a major metropolitan environment.

E. Markedly more enjoyment in the study of American History than rural-small town environment students.

F. Markedly more positive attitudinal changes toward the concept of farming than do students living in a rural-small town environment or a major metropolitan environment.

G. A more marked increase in their ability to examine possible approaches to solving problems than do students living in a major metropolitan environment.

3. Students living in a major metropolitan environment and enrolled in United States History classes where the simulation-gaming method is used report:

A. Markedly more interest toward the subject of history than do students from a medium size city environment.

B. More marked attitudes favoring learning useful knowledge by working together in peer groups than do students living in a medium size city environment.

C. Markedly more positive attitudes toward the academic nature of the classroom materials than do students living in a medium size city environment.

D. Markedly increased positive opinions that they have acquired a variety of historical information upon which to base judgments than do students living in a rural-small town environment or a medium size city environment.

E. A more marked increase in the exchange of ideas and information with their peers than do students living in a medium size city environment.

F. A more marked increase in their ability to examine possible approaches to solving problems than do students living in a medium size city environment.

G. Markedly more enjoyment in the study of American History than do rural-small town environment students.

In general, the experimental group students from different social/geographic environments do respond differently to aspects of the learning experience upon return to the traditional teaching methods. Specifically, the rejection of Hypothesis Two for twenty-three response items supported the following conclusions:

1. Students living in a rural-small town environment and enrolled in United States History classes where the simulation-gaming method is utilized report:

A. A more marked decrease in response to teacher questions than students living in a medium size city environment upon return to the traditional teaching method.

B. A more marked decrease in interest toward subject matter than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

C. A more marked decrease in time spent using the library than do students living in a medium size city environment upon return to the traditional teaching method.

D. Markedly more negative attitudes toward the traditional teaching methods than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

E. A more marked decrease in their exchange of ideas and information with their peers than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

F. A more marked decrease in enjoyment of working with the classroom materials than do students who live in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

G. A more marked decrease in their active classroom participation than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

H. Markedly more negative opinions that the study of history is helping them to examine possible approaches to solving everyday problems than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

I. A more marked decrease in their personal in-classroom relationship with the teacher than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

J. A more marked decrease in their active participation in their own learning experience than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

2. Students living in a medium size city environment and enrolled in United States History classes where the simulation-gaming method is utilized report:

A. A more marked decrease in the time spent preparing for class than do students living in a medium size city environment or a major metropolitan environment upon return to the traditional teaching method.

B. A more marked decrease in their enjoyment of the study of American History than do the students living in a rural-small town environment upon return to the traditional teaching method.

3. Students living in a major metropolitan environment and enrolled in United States History classes where the simulation-gaming method is utilized report:

A. A more marked decrease in response to teacher questions than do students living in a medium size city environment upon return to the traditional teaching method.

B. A more marked decrease in their enjoyment of the study of American History than do the students living in a rural-small town environment upon return to the traditional teaching method.

C. A more marked decrease in time spent using the library than do students living in a medium size city environment upon return to the traditional teaching method.

D. A more marked decrease in their ability to learn useful knowledge from their peers than do the students living in a rural-small town environment or a major metropolitan environment upon return to the traditional teaching method.

E. Markedly more negative attitudes toward the academic value of the material than do the students living in a rural-small town environment or a major metropolitan environment upon return to the traditional teaching method.

F. Markedly more negative attitudes toward their ability to make historical judgments on the basis of a variety of information than do students who lived in a medium size city environment upon return to the traditional teaching method.

DISCUSSION

In the world of twentieth century American education, serious questions have been asked concerning what is worth knowing and what is needed for living an effective life. Teachers in elementary, secondary and college classrooms frequently raise these questions. Their students participate in a dynamic society, one charged with emotion, physical action and imagination. However, many courses of study in the schools place emphasis on abstract and relatively

passive learning processes, allowing students few opportunities for active participation in the learning process. This emphasis has created a high degree of frustration among students who feel the need for active participation in the learning process and in societal affairs.

The utilization of simulation-gaming as a teaching tool has become of increasing importance to teachers, social scientists, and behavioral scientists. Many educators believe that simulation-gaming techniques provide feasible alternatives to the abstractness of traditional lecture-discussion techniques. However, many educators make the assumption that simulation-gaming has an equally positive effect on all students who participate in classes where the pedagogical technique is utilized. This assumption is easy to make, for the affective studies in the past have failed to determine if students whose social and geographical environments vary, achieve the identical affective results when they are involved in the simulation-gaming process.

This researcher found that students living in different community environments did markedly differ in their perceptions of the learning experience when simulation-gaming techniques were utilized. The simulation-gaming technique did have a greater marked effect on those students living in a rural-small town community environment. For those students living in a major metropolitan environment, a more marked effect was found than for the students living in a medium size city environment. However, it must be emphasized that the simulation-gaming technique did affect the perceptions of all students involved, even though certain group perceptions were more marked than others.

As researchers continue to determine the effect of simulation-gaming techniques on students' affective perceptions and cognitive achievement, it is apparent that more attention should be given to the environmental factors and their impact on the learning process.

REFERENCES

Allen, Layman E. and Main, Dana B. "The Effect of Instructional Gaming upon Absenteeism: The First Step." Simulation and Gaming. Ed. by John E. Moriarty. Washington: U.S. Department of Commerce, 1973.

Cohen, Karen. "Effects of the Consumer Game on Learning and Attitudes of Selected Seventh Grade Students in a Target-area School." Report No 65. Baltimore: Center for Social Organization of Schools, 1970.

Kunkel, Richard C. and McElhinney, James H. "A Rationale for the Evaluation of Curriculum." Unpublished paper, Ball State University, Muncie, 1970.